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Abstract OF THE DISCLOSURE

The disclosed system represents an improvement over conventional systems for initializing static arrays by reducing the amount of code executed by the virtual machine to statically initialize an array. To realize this reduction, when consolidating class files, the preloader identifies all <clinit> methods and play executes these methods to determine the static initialization performed by them. The preloader then creates an expression indicating the static initialization performed by the <clinit> method and stores this expression in the .mclass file, replacing the <clinit> method. As such, the code of the <clinit> method, containing many instructions, is replaced by a single expression instructing the virtual machine to perform static initialization, thus saving a significant amount of memory. The virtual machine is modified to recognize this expression and perform the appropriate static initialization of an array.

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